

DIALOG(R)File 347:JAPIO

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05375102    \*\*Image available\*\*

MANUFACTURE OF SEMICONDUCTOR DEVICE

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INTL CLASS:    [6] H01L-029/786; H01L-021/336; H01L-021/20; H01L-021/268;  
                                 H01L-021/322; H01L-021/324

JAPIO CLASS:    42.2 (ELECTRONICS -- Solid State Components)

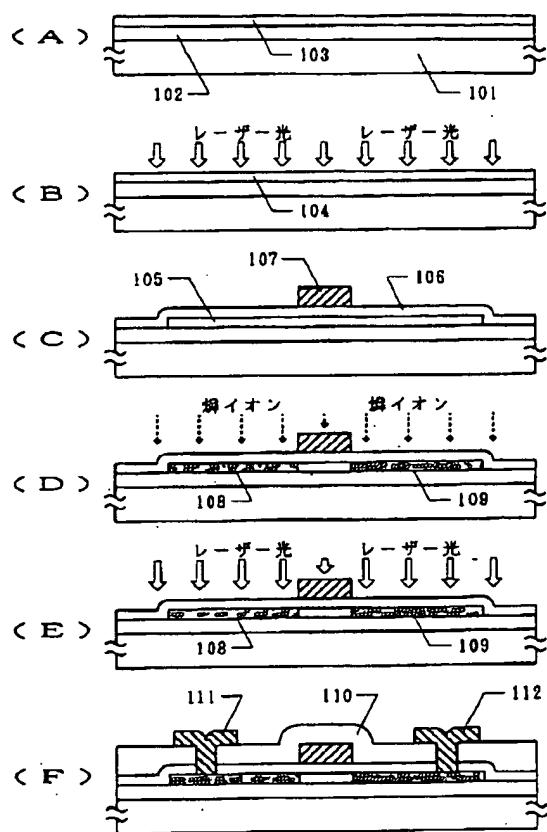
JAPIO KEYWORD: R002 (LASERS); R004 (PLASMA); R096 (ELECTRONIC MATERIALS --  
                                 Glass Conductors); R097 (ELECTRONIC MATERIALS -- Metal Oxide  
                                 Semiconductors, MOS); R100 (ELECTRONIC MATERIALS -- Ion  
                                 Implantation)

#### ABSTRACT

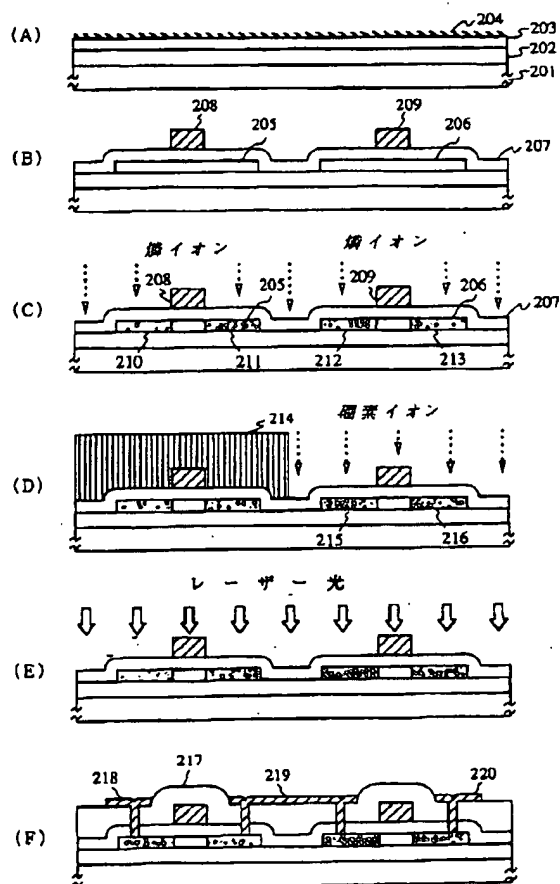
PURPOSE: To enhance the characteristics of a semiconductor device,  
utilizing a metal element which accelerates crystallization of Si.

CONSTITUTION: A thin film transistor is constituted, using a crystalline Si  
film obtained by utilizing a metal element, Ni, which accelerates the  
crystallization of Si. A source region 108 and drain region 109 are  
produced with Ni by implanting ions of an element, P, for gettering Ni and  
annealing to getter Ni. For forming a P-channel type thin film transistor,  
for example, both phosphorus and boron are used; phosphorus determining the  
conductivity and boron being used for gettering.

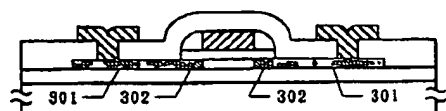
【図1】



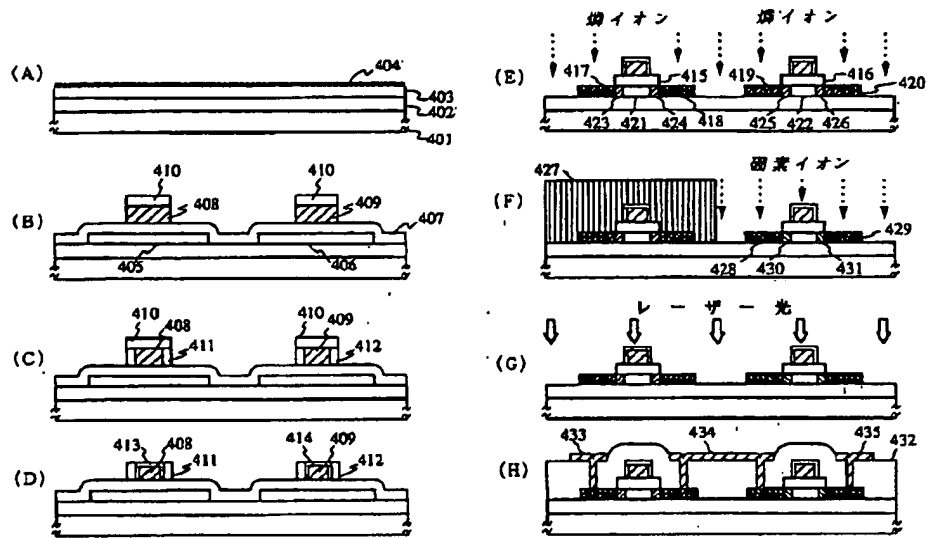
【図2】



【図3】



【図4】



フロントページの続き

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H01L 21/324

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FI  
H01L 29/78

技術表示箇所

616A  
627G